

WHAT IS CLAIMED IS:

1. A motor comprising:

a cup-like bearing housing integrally including a cylindrical portion, a bottom portion and a hollow portion defined by said cylindrical portion and said bottom;

a radial bearing held in said hollow portion while being in contact with the inner surface of said cylindrical portion;

a thrust receiving plate disposed at said bottom portion of said cup-like bearing housing; and

a rotary shaft rotatably supported by said radial bearing in a state that an extreme end thereof is in contact with said thrust receiving plate.

2. A motor in accordance with claim 1, wherein said bearing housing is formed by shaping a metal sheet by drawing process.

3. A motor in accordance with claim 1, wherein said radial bearing is made of sintered oil-impregnated alloy, and a gap, which may be used for storing oil to be impregnated into said radial bearing, is formed between the inner surface of said cylindrical portion of said bearing housing and the outer surface of said radial bearing.

4. A motor in accordance with claim 1, wherein said bearing housing has a stepped part, which is located between said bottom portion thereof and an end face of one end of said radial bearing,

4 said rotary shaft includes a reduced-diameter portion, which is
5 located between an extreme end thereof closer to said thrust
6 receiving plate and an end face of one end of said radial bearing,
7 and ring-like slipping-off preventing means is placed between said
8 stepped part of said radial bearing and the end face of said radial
9 bearing, while engaging said reduced-diameter portion of said
10 rotary shaft.

1 5. A motor in accordance with claim 1, wherein a flange-like
2 portion, while bent outward, is formed on the end of said bearing
3 housing at which said bearing housing is opened, and rotor
4 slipping-off preventing means is extended from a rotor of said motor
5 toward said flange-like portion.

1 6. A motor in accordance with claim 1, wherein axially elongated
2 grooves are formed in the outer surface of said radial bearing or
3 the inner surface of said bearing housing, said grooves
4 communicating a space, which is formed by the end face of one end
5 of said radial bearing and said bottom portion of said bearing
6 housing, with another space located closer to the opening end of
7 said bearing housing.

1 7. A motor in accordance with claim 1, wherein said motor includes
2 a stator plate, said stator plate includes burring portions being
3 arranged in a ring-like fashion, and said burring portions hold

512
Cover 4 the outer surface of said bearing housing.

1 8. A motor in accordance with claim 7, wherein said burring
2 portions of said stator plate holds said bearing housing such that
3 said bearing housing is movable in axial or circumferential
4 directions.

1 9. A motor in accordance with claim 8, wherein said bearing
2 housing is fixedly coupled to said stator plate in a state that
3 said bearing housing is set at a predetermined position of said
4 burring portions and held by said burring portions.

1 10. A motor in accordance with claim 7, where core fixing portions
2 are formed by bending a part of said stator plate in the vicinity
3 of said burring portion, and a stator core is brought into contact
4 with said core fixing portions.

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62
1 11. A motor comprising:
2 a rotor portion with a rotary shaft;
3 a stator portion disposed facing said rotor portion;
4 a cup-like bearing housing integrally including a cylindrical
5 portion and a bottom portion;
6 a radial bearing rotatably supporting said rotary shaft in
7 a radial directions while being held within said bearing housing;
8 and

9 a thrust bearing, disposed on said bottom portion, for
10 supporting said rotary shaft in a thrust direction.

1 12. A motor in accordance with claim 11, wherein said radial
2 bearing is a sintered oil-impregnated bearing, and said bearing
3 housing includes a bearing fixing portion for holding said radial
4 bearing having been press fit thereinto, a positioning portion for
5 positioning said radial bearing within said bearing housing, and
6 oil storing portion for storing oil to be impregnated into aid
7 sintered oil-impregnated bearing.

1 13. A motor in accordance with claim 12, wherein a disc hub for
2 the attaching and detaching of a disc is attached to said rotary
3 shaft, and the directions of attaching and detaching the disc are
4 coincident with the contacting direction of said thrust bearing.